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IFW / APF

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Philip W. Wyers
Appl. No.: 10/699,096
Filed: October 31, 2003
Docket No.: 2000
Conf. No.: 2637
Title: **METHOD OF CAPTURING INSECTS**

Art Unit: 3643
Examiner: Darren W. Ark

Action: **TRANSMITTAL OF APPEAL BRIEF**
Date: March 3, 2006

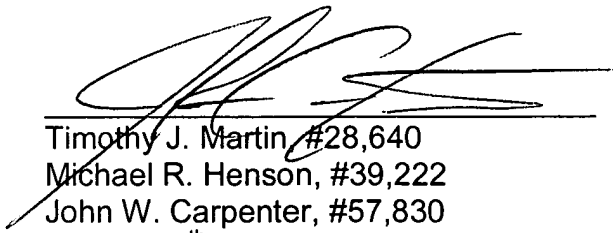
To: Mail Stop Appeal Brief – Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In reference to the above-identified patent application, please find enclosed the Appeal Brief and check no. 19081 in the amount of \$250.00 for the filing fee associated with this brief. The Commissioner is hereby authorized to charge any deficiency in the payment of the required fee(s) or credit any overpayment to Deposit Account No. 13-1940.

Respectfully submitted,

MARTIN & HENSON, P.C.

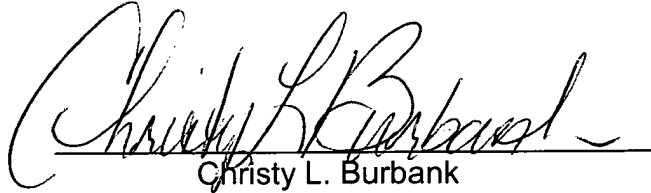


Timothy J. Martin, #28,640
Michael R. Henson, #39,222
John W. Carpenter, #57,830
9250 W. 5th Avenue, Suite 200
Lakewood, Colorado 80226
(303) 232-3388



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Christy L. Burbank



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Sir:

This Appeal is from the third rejection of claims 1-7 and 9-12 in the above-referenced patent application. A Notice of Appeal was mailed by Appellant on December 28, 2005, with a certification pursuant to 37 C.F.R. § 1.8, and was received by the Patent Office on January 3, 2006. The Appeal Brief is due two months from the date received. Accordingly, the due date for this Appeal Brief is March 3, 2006.

In compliance with 37 C.F.R. § 41.37 and M.P.E.P. 1205.02, Appellant submits the following as his Appeal Brief in this matter through the undersigned attorney or agent.

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I. REAL PARTY IN INTEREST

The real party in interest for purposes of this appeal is the named inventor, Philip W. Wyers, an individual residing at 14705 East Aberdeen Avenue, Centennial, Colorado, 80016.

II. RELATED APPEALS AND INTERFERENCES

This is the first time that Applicant/Appellant has appealed the rejection of his application. There are no other appeals or interferences known to the Appellant or the Appellant's legal representatives that will have a bearing on the Board's decision to be rendered in this Appeal.

III. STATUS OF CLAIMS

Claims 1-7 and 9-33 are currently pending in the application. Claims 1-7 and 9-12 have been thrice rejected, and all claims pending in the application (1-7 and 9-33) are hereby appealed. Claim 8 was cancelled and claims 1, 7, and 9-11 were amended in an Amendment dated October 7, 2004. Claims 1 and 4 were amended and new claims 13-33 were added in an Amendment dated June 3, 2005 that was filed concurrently with a Request for Continued Examination (RCE). No claims have been allowed.

IV. STATUS OF AMENDMENTS

The Examiner's Office Action, dated June 28, 2005, was in response to Appellant's Amendment of June 3, 2005. Appellant filed its Notice of Appeal on January 3, 2006. Attached hereto as CLAIMS APPENDIX is a copy of the current version of pending claims 1-7 and 9-33.

V. SUMMARY OF CLAIMED SUBJECT MATTER

The subject matter disclosed generally relates to an insect collection device. As described beginning on page 9, line 21 of the specification, insect collection device 10 (Figures 1(a) and 1(b)) is in the form of a hand operated mechanism which can be placed in close proximity to a target insect and manually actuated to draw the target insect into a collection region through a suctioning effect. As shown in these figures, insect collection device 10 comprises an elongated and generally tubular housing 20, a movable closure 50 and a compression chamber 70. As further described on page 10, line 4, movable closure 50 is disposed on an upstream end portion of housing 20, while compression chamber 70 is disposed on a downstream end portion of housing 20.

As described beginning on page 12, line 2, movable closure 50 fits snugly over the upstream end portion of collection tube 33 to prevent dislodgment during use. Once the insect collection device 10 is in the assembled state, as shown in various ones of the figures, mesh screen 36 forms a partition which separates the housing interior 26 into an upstream insect collection region 25 (Figure 10), generally defined within collection tube 33 between mesh screen 36 and movable closure 50, and a downstream region 27 that is to the left of mesh screen 36 in the figures. The upstream region of the housing, where insects are to be collected, is preferably non-adhering to insects. To this end, and as apparent from the various figures, the inner sidewall in the collection region is devoid of any tacky substance, which would otherwise stick to captured insects.

As described on page 13, line 6 and as shown in various one of the figures, compression chamber 70 is preferably in the form of a flexible bellows having a plurality of hinged ribs 72 joined together in an accordion-like manner so that compression

chamber 70 can be moved between the uncompressed position and the compressed position. With reference to page 14, line 3, figures 3(a) and 3(b) respectively show insect collection device 10 in a relaxed configuration wherein compression chamber 70 is in the uncompressed position, and a ready configuration wherein compression chamber 70 is in the compressed position. As may also be seen in these figures, insect collection device 10 includes a triggering assembly 80, which is mechanically coupled to compression chamber 70 and is operative when placed in an engaged state (Figure 3(b)) to retain compression chamber 70 in the compressed position.

As described beginning on page 18 line 12, an individual prepares insect collection device 10 for use by compressing bellows 70 against the restorative force of spring 6 into the compressed position of Figure 1(b). This causes a corresponding movement of plunger shaft 84 in the upstream direction until the notched medial portion 85 of plunger shaft 84, which has a reduced thickness begins to pass through lobe-like opening 88 of trigger switch 82. The upward bias on trigger spring 87 then urges lobe-like opening 88 into contact with medial portion 85 so that medial portion 85 is seated within lower lobe portion 88 of trigger 82. During this compression, air escapes through the purge valve 78 in the direction of arrows "A" in Figure 3(b). This allows the insect collection device 10 to be placed in the armed state without pressurizing the interior and without causing movable closure 50 to be inadvertently placed in the open position. Continuing on page 19, the user can then relieve pressure on bellows 70 and the restorative force of spring 6 urges the shoulder of plunger shaft 84 into engagement with arm 90. At this point, insect collection device 10 is in a ready state with triggering assembly 80 correspondingly in an engaged position.

Once the user approaches a target insect whereby the upstream end 22 of housing 20 is positioned in close proximity to the target insect, the user depresses trigger button 86, thereby dislodging trigger 82 from medial portion 85. The restorative force of spring 6 then causes a vacuum effect within the housing interior as compression chamber 70 returns to the uncompressed state. This vacuum effect urges closure 50 into the open position and, at the same time, draws the target insect into collection tube 33. As the suctioning effect reduces and the pressure within housing interior 26 begins to equalize with the ambient pressure, closure 50 is restored to its closed position, thereby confining the captured insect within collection tube 33 between screen 36 and closure 50.

Another representative embodiment of the closure is described beginning on page 22, line 10. As shown in Figures 31-33, nozzle 180 is formed by a pair of matable pieces 181 and 191, which mount movable closure 150. Reference will now be made to Figures 31-35 to describe the mounting assembly for movable closure 150. Movable closure 150 includes a pair of trap doors 152 and 154, which are mounted between nozzle pieces 181 and 191. Each of doors 152 and 154, when in the mounted state, are resiliently biased into a closed position through the provision of an associated clip spring, such as clip spring 172 shown in Figure 35. Continuing on page 23, wall sections 185 and 195 are formed as part of nozzle pieces 181 and 191 to prevent first door 152 from swinging open outwardly beyond the opened position. Second door 154 is mounted between nozzle pieces 181 and 191 in a like manner. As such, it can be appreciated that doors 152 and 154 are resiliently biased into their closed position, yet permitted to swing into an open position upon creation of the vacuum effect discussed above. Target insects are then drawn into collection

region 125 where they are maintained between partition screen 138 and the trap doors.

As discussed on page 24, line 18, it should be readily appreciated that the constructions described above allow for a method to be repeatedly employed to capture insects for inspection and subsequent removal or extermination without risk of escape. This method entails the provision of an elongated housing having a sidewall, which extends between upstream and downstream ends to substantially surround a housing interior. The housing is constructed to permit air to flow between the upstream and downstream ends while impeding passage of insects therebetween. A movable closure is provided at an upstream end portion of the housing and biased into a closed position, which hinders access to the interior through the upstream end. Air is evacuated through the sidewall at a downstream region of the housing, thereby establishing a potential vacuum source within the housing interior. In a preferred embodiment, a purge valve is provided and movably disposed over a purge opening formed through the housing's sidewall. Air is evacuated through this purge opening, thereby establishing the potential vacuum source within the housing interior.

The movable closure is preferably then placed proximate to a target insect(s) and air pressure is created within the upstream region that is less than ambient pressure at the upstream end, whereby ambient air is drawn into the housing interior at a sufficient flow to cause the movable closure to move into an open position. This creates an entryway into the upstream region from the upstream end and draws the insect into the upstream region where it is trapped when the closure returns to the closed position.

A compression chamber may be provided at a downstream end portion of the housing, whereby the step of evacuating air from the housing is accomplished by compressing the chamber into a compressed position. It is preferred that the compression chamber be mechanically maintained in the compressed position and resiliently biased into an uncompressed position. Creation of the air pressure differential can then be accomplished by allowing the compression chamber to return to the uncompressed position.

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

At the outset the Appellant would like to address the organization of the Office Action and this Appeal Brief responding thereto. The Examiner has, in several instances, omitted references from the headings of the grounds for rejection that appear in the body of the rejection. The Appellant has attempted to decipher these grounds of rejection for the purpose of this appeal. In addition, several of the grounds for rejection appear to be redundant. In an effort to simplify the Boards analysis, Appellant has referenced previous arguments where applicable. For instance in the Office Action the heading for the first ground of rejection (Detailed Action #2) is identical to the fifth (Detailed Action # 6) when missing references are accounted for. These grounds of rejection correspond to headings A and E in the Appeal Brief. Accordingly, rather than repeat the same arguments under a different heading, the Appellant has referred to the earlier arguments that address the same rejection where appropriate.

The following grounds of rejection are Appealed:

A. Has the Examiner established a *prima facie* case of obviousness under 35 U.S.C. § 103(a) in rejecting claims 1-7 and 9-33 as being unpatentable over U.S. Patent No. 4,817,330 to Fahringer ("Fahringer '330) in view of U.S. Patent No. 4,918,857 to Wade et. al. ("Wade '857") and U.S. Patent No.

4,733,495 to Winnicki (“Winnicki ‘495) [or U.S. Patent No. 1,308,497 to Jolly (“Jolly ‘497”)]¹?

B. Has the Examiner established a *prima facie* case of obviousness under 35 U.S.C. § 103(a) in rejecting claims 14, 15, and 25-27 as being unpatentable over Fahringer ‘330 in view of Wade ‘857, Winnicki ‘495 and further in view of WO 92/074461 to Bron (“Bron ‘074461”)?

C. Has the Examiner established a *prima facie* case of obviousness under 35 U.S.C. § 103(a) in rejecting claims 7, 9-12, and 24-33 as being unpatentable over Fahringer ‘330 in view of Wade ‘857, Winnicki ‘495 [or Jolly ‘497]¹ and U.S. Patent No. 3,965,608 to Schuman (“Schuman ‘608”)?

D. Has the Examiner established a *prima facie* case of obviousness under 35 U.S.C. § 103(a) in rejecting claims 25-27 as being unpatentable over Fahringer ‘330 in view of Wade ‘857, Winnicki ‘495, Schuman ‘608, and further in view of Bron ‘074461?

E. Has the Examiner established a *prima facie* case of obviousness under 35 U.S.C. § 103(a) in rejecting claims 1-7 and 9-33 as being unpatentable over Fahringer ‘330 in view of [Wade ‘857 and]² Winnicki ‘495 [or Jolly ‘497]¹?

F. Has the Examiner established a *prima facie* case of obviousness under 35 U.S.C. § 103(a) in rejecting claims 14, 15, and 25-27 as being unpatentable over Fahringer ‘330 in view of Winnicki ‘495, and further in view of Bron ‘074461?

G. Has the Examiner established a *prima facie* case of obviousness under 35 U.S.C. § 103(a) in rejecting claims 7, 9-12, and 24-33 as being unpatentable over Fahringer ‘330 in view of Winnicki ‘495 [or Jolly ‘497]¹ and Schuman ‘608?

H. Has the Examiner established a *prima facie* case of obviousness under 35 U.S.C. § 103(a) in rejecting claims 25-27 as being unpatentable over Fahringer ‘330 in view of Winnicki ‘495 and Schuman ‘608, and further in view of Bron ‘074461?

¹ Appellant believes the Examiner mistakenly omitted Jolly ‘497 from various grounds of rejection headings in the Office Action. In each case, the Jolly ‘497 reference is referred to in the body of the rejection but is not listed in the heading. Appellant is unclear as to whether the Examiner meant to remove the reference entirely or simply omit the reference in the headings. In order to ensure that this Appeal Brief is responsive to each ground of rejection, Appellant has elected to address each affected ground of rejection as if the Examiner intended to include Jolly ‘497. Appellant, however, reserves the right to modify its arguments should this understanding be incorrect.

² Appellant believes the examiner mistakenly omitted Wade ‘857 from this ground of rejection heading in the Office Action. The Wade ‘857 reference is referred to in the body of the rejection but is not listed in the heading. In order to ensure that this Appeal Brief is responsive to each ground of rejection, Appellant has elected to address this ground of rejection as if the Examiner intended to include Wade ‘857. Appellant, however, reserves the right to modify its arguments should this understanding be incorrect.

VII. GROUPING OF THE CLAIMS

Appellant asserts that each of claims 1, 5, 7, 11, and 14-33 stands alone. If claim 1 falls, then claims 2, 3, 4, 6, and 13 also fall. If claim 7 falls, then claims 9, 10 and 12 fall.

VIII. ARGUMENT

A *prima facie* case of obviousness requires that the prior art reference (or references when combined) teach or suggest all the claim limitations. *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q. 2d 1438 (Fed. Cir. 1991); *In re Royka*, 490 F.2d 981, 180 U.S.P.Q. 580 (C.C.P.A. 1974); *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970) ("All words in a claim must be considered in judging patentability of that claim against the prior art."); MPEP §2143.03.

Further, a *prima facie* case of obviousness also requires that there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. *In re Vaeck*, supra; *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q. 2d 1596 (Fed. Cir. 1988); *In re Jones*, 958 F.2d 347, 21 U.S.P.Q. 2d 1941 (Fed. Cir. 1992). In establishing a *prima facie* case of obviousness under 35 U.S.C. §103, it is incumbent upon the Examiner to provide a reason why one of ordinary skill in the art would have been led to modify a prior art reference or to combine reference teachings to arrive at the claimed invention. *See Ex parte Clapp*, 227 U.S.P.Q. 972, 973 (Bd. Pat. App. & Int. 1985). Furthermore, where modifying the reference would destroy the intent, purpose, or function of the reference, it is improper to make a rejection under 35 U.S.C. §103. Where modifying the reference would destroy the intent, purpose, or function of the reference, there is no technological motivation for the modification; in

fact, there is a disincentive to make such a modification. See *In re Gordon*, 733 F.2d 900, 902, 221 U.S.P.Q. 1125.

The requisite motivation must stem from some teaching, suggestion or inference in the prior art as a whole or from the knowledge generally available to one of ordinary skill in the art and not from the applicant's disclosure. See, e.g., *Uniroyal, Inc. v. Rudkin-Wiley Corp.*, 837 F.2d 1044, 1052, 5 U.S.P.Q.2d 1434 (Fed. Cir.), *cert denied*, 488 U.S. 825 (1988); *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991) (The teaching or suggestion to make the claimed combination must not be based on applicant's disclosure); MPEP §2142. That is, it is improper to use hindsight reconstruction of the claimed invention using the applicant's structure as a template. *In re Gorman*, 18 U.S.P.Q. 2d 1885 (Fed. Cir. 1991). When the only suggestion to combine the teachings of the references in the manner proposed by the Examiner is found in the hindsight accorded one who first views the applicant's disclosure, an obviousness rejection under 35 U.S.C. §103 is improper. See *In re Fritch*, 972 F.2d 1260, 1266, 23 U.S.P.Q.2d 1780, 1784 (Fed. Cir. 1992).

It is axiomatic that the mere fact that the prior art structure could be modified does not make such a modification obvious unless the prior art *suggests the desirability of doing so*. See *In re Gordon*, 733 F.2d 900, 902, 221 U.S.P.Q. 1125, 1127 (Fed. Cir. 1984); *In re Mills*, 916 F. 2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990); MPEP § 2143.01 Further, the fact that the claimed invention is within the capabilities of one of ordinary skill in the art is not sufficient to establish a prima facie case of obviousness without some objective reason to combine the teachings of the references. *Ex parte Levengood*, 28 USPQ2d 1300 (Bd. Pat. App. & Inter. 1993).

A. The Examiner has failed to establish a *prima facie* case of obviousness under 35 U.S.C. § 103(a) in rejecting claims 1-7 and 9-33 as being unpatentable over Fahringer '330 in view of Wade '857" and Winnicki '495 [or Jolly '497]¹.

Claims 1, 2, 3, 4, 6, and 13

Claim 1 recites "a movable closure at an upstream end portion" that is retained in the "closed position" while air is evacuated from the housing. The Examiner maintains that it would have been obvious to include a movable closure that is in the closed position during evacuation. One of ordinary skill in the art would not be motivated to modify Fahringer to include a movable closure retained closed during evacuation. Fahringer incorporates a tacky surface presumably to prevent captured insects from escaping as air is evacuated through the front end 19 in preparation for triggering -- hence the absence of (and lack of need for) a movable closure in Fahringer. Indeed, regardless whether it would be obvious to incorporate a movable closure into the device of Fahringer, it would disrupt the operation of Fahringer's device were the movable closure retained closed during evacuation. Were such a feature incorporated into Fahringer, air could not escape the front end 19 (as necessary) upon compression of bellows 12. Where modifying the reference would destroy the intent, purpose, or function of the reference, there is no technological motivation for the modification; in fact, there is a disincentive to make such a modification. See *In re Gordon*, supra. It is, therefore, submitted that independent claim 1 and its respective dependents 2, 3, 4, 6 and 13 are all allowable on this basis.

Claims 5 and 11

Claims 5 and 11 both recite that the method "includes mechanically maintaining [the] compression chamber in the compressed position." Fahringer does

not disclose mechanically maintaining the compression chamber in the compressed position. Fahringer merely teaches mechanically maintaining the butterfly valve 30 in a closed position via spring 32. Bellows 12 are pneumatically maintained in a compressed position by the pressure differential between the atmospheric pressure surrounding the bellows and the vacuum inside the bellows. As noted above, a *prima facie* case of obviousness requires that the prior art reference suggests all the claim limitations. *In re Vaeck*, supra. It is respectfully submitted that the Fahringer does not include all the claim limitations of claims 5 and 11 because it only pneumatically maintains the compression chamber in a compressed position; it does not mechanically maintain it. Thus a *prima facie* case of obviousness has not been established and claims 5 and 11 should be allowed.

Claims 7, 9, 10, and 12

Claim 7 recites “evacuating air through [the] sidewall at the downstream region of said housing.” One of ordinary skill in the art would not be motivated to modify Fahringer to evacuate air through the sidewall. Any such modification would not be obvious because Fahringer already provides a mechanism for expelling air out the front end in order to ready the device for actuation. Thus, one would not be inclined to evacuate air through the downstream region since this would not provide a capability (air evacuation), which is absent in Fahringer. A *prima facie* case of obviousness also requires that there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. *In re Vaeck*, supra. Based on this reasoning, it is submitted that independent claim 7 and its respective dependent claims 9, 10, and 12 are allowable.

Furthermore, Appellant maintains that the applied references fail to disclose evacuating the air through the sidewall of the downstream region. For example, Winnicki teaches evacuating the air through the back wall 20 of the compression chamber. As noted above, a *prima facie* case of obviousness requires that the prior art reference suggests all the claim limitations. *In re Vaeck*, supra. It is respectfully submitted that the Fahringer in view of the applied references does not include all the claim limitations of claim 7. Thus a *prima facie* case of obviousness has not been established and claims 7, 9, 10 and 12 should be allowed.

Claims 14 and 27

Claims 14 and 27 recite that the “movable closure is mechanically retained in the closed position during evacuation.” As discussed above, one of ordinary skill in the art would not be motivated to modify Fahringer to include a movable closure retained closed during evacuation. Fahringer incorporates a tacky surface presumably to prevent captured insects from escaping as air is evacuated through the front end 19 in preparation for triggering -- hence the absence of (and lack of need for) a movable closure in Fahringer. Indeed, regardless whether it would be obvious to incorporate a movable closure into the device of Fahringer, it would disrupt the operation of Fahringer's device were the movable closure retained closed during evacuation. Were such a feature incorporated into Fahringer, air could not escape the front end 19 (as necessary) upon compression of bellows 12. Where modifying the reference would destroy the intent, purpose, or function of the reference, there is no technological motivation for the modification; in fact, there is a disincentive to make such a modification. See *In re Gordon*, supra. It is, therefore, submitted that claims 14 and 27 are allowable.

Furthermore, Appellant maintains that such a feature is not fully and fairly taught by Winnicki (which discloses deflectable fingers 86), or Wade (which discloses an elastomer flap closure member 26), or Jolly (which teaches inwardly pointing hairs). As noted above, a *prima facie* case of obviousness requires that the prior art reference suggests all the claim limitations. *In re Vaeck*, supra. It is respectfully submitted that the Fahringer in view of the applied references does not include all the claim limitations of claims 14 and 27. Thus a *prima facie* case of obviousness has not been established and claims 14 and 27 should be allowed.

Claims 15 and 28

Claims 15 and 28 recite that the movable closure “is restricted from moving outwardly in an upstream direction, yet is adapted to move inwardly in a downstream direction” as it assumes the open position. In other words, the movable closure is a one-way device, such as representatively shown by the trap doors in figures 11-13 and figures 23 and 33 particularly. This feature is advantageous because the inability of the movable closure to move outwardly lessens the chance of startling an insect, which is in close proximity to the upper end, or disrupting the ability to capture the insect, or risking escape of previously captured insects. Advantageously also, as the compression chamber is compressed to prepare the device for triggering, any air which is not evacuated through the downstream end would not open the movable closure but instead urge it to close more securely. Incorporating a movable closure which is restricted from outward movement would not be an obvious modification to Fahringer because it would likely prevent compression of the bellows, at least to the extent necessary to ready Fahringer’s device for actuation. Were such a feature incorporated into Fahringer, air could not escape the front end 19 (as necessary) upon compression of bellows 12. Again, where modifying the reference would

destroy the intent, purpose, or function of the reference, there is no technological motivation for the modification; in fact, there is a disincentive to make such a modification. See *In re Gordon*, supra. It is, therefore, submitted that claims 15 and 28 are both allowable.

Claim 16

Claim 16 recites that the “air is evacuated through a downstream region of [the] housing.” One of ordinary skill in the art would not be motivated to modify Fahringer to evacuate air through the downstream region. Any such modification would not be obvious because Fahringer already provides a mechanism for expelling air out the front end in order to ready the device for actuation. Thus, one would not be inclined to evacuate air through the downstream region since this would not provide a capability (air evacuation), which is absent in Fahringer. A *prima facie* case of obviousness requires that there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. *In re Vaeck*, supra. Based on this reasoning, it is submitted that claim 16 is allowable.

Claims 17 and 24

Claims 17 and 24 both recite that the “air is only evacuated through [the] downstream region.” One of ordinary skill in the art would not be motivated to modify Fahringer to evacuate air through only the downstream region. Any such modification would not be obvious because Fahringer already provides a mechanism for expelling air out the front end in order to ready the device for actuation. Thus, one would not be inclined to evacuate air through the downstream region since this would not provide a capability (air evacuation), which is absent in Fahringer. A *prima facie* case of obviousness also requires that there must be some suggestion or

motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. *In re Vaeck*, supra. Based on this reasoning, it is submitted that claims 17 and 24 are allowable.

Claims 18 and 29

Claims 18 and 29 both recite “permitting unconstrained movement of the insect within the upstream region after capture.” This is certainly not present in Fahringer, which has its trap 18 lined with a tacky interior surface 20 for the obvious purpose of preventing movement of the captured insects. In Fahringer, the tacky surface presumably also prevents captured insects from escaping as air is evacuated through the front end 19 in preparation for triggering. By not constraining the movement of captured insects, the present invention not only allows for the insects to be captured and observed but it allows them to be released into the atmosphere without harm so that the device, unlike Fahringer’s, can be reusable without having to dispose of the front end. Furthermore, in order to modify Fahringer to allow insects to move unconstrained, the tacky surface would need to be removed. Removing the tacky surface would render Fahringer inoperable in that it would allow insects to escape. Again, where modifying the reference would destroy the intent, purpose, or function of the reference, there is no technological motivation for the modification; in fact, there is a disincentive to make such a modification. See *In re Gordon*, supra. It is, therefore, submitted that claims 18 and 29 are both allowable.

Claims 19, 20, 30, and 31

Claims 19, 20, 30, and 31 all recite “releasing the insect into ambient air after capture.” This is certainly not present in Fahringer, which has its trap 18 lined with a

tacky interior surface 20 for the obvious purpose of preventing movement of the captured insects. In Fahringer, the tacky surface presumably also prevents captured insects from escaping as air is evacuated through the front end 19 in preparation for triggering. By not constraining the movement of captured insects, the present invention not only allows for the insects to be captured and observed but it allows them to be released into the atmosphere without harm so that the device, unlike Fahringer's, can be reusable without having to dispose of the front end. Furthermore, in order to modify Fahringer to allow insects to be released into ambient air after release, the tacky surface would need to be removed. Removing the tacky surface would render Fahringer inoperable in that it would allow insects to escape. Again, where modifying the reference would destroy the intent, purpose, or function of the reference, there is no technological motivation for the modification; in fact, there is a disincentive to make such a modification. *See In re Gordon, supra*. It is, therefore, submitted that claims 19, 20, 30, and 31 are all allowable.

Claims 21 and 32

Claims 21 and 32 both recite a "removable collection tube" and "releasing the insect into ambient air after capture." This, again, is not present in Fahringer, which has its trap 18 lined with a tacky interior surface 20 for the obvious purpose of preventing movement of the captured insects. In Fahringer, the tacky surface presumably also prevents captured insects from escaping as air is evacuated through the front end 19 in preparation for triggering. By not constraining the movement of captured insects, the present invention not only allows for the insects to be captured and observed but it allows them to be released into the atmosphere without harm so that the device, unlike Fahringer's, can be reusable without having to dispose of the front end. Furthermore, in order to modify Fahringer to allow the

tube to be removed and the insect released into ambient air after release, the tacky surface would need to be removed. Removing the tacky surface would render Fahringer inoperable in that it would allow insects to escape. Again, where modifying the reference would destroy the intent, purpose, or function of the reference, there is no technological motivation for the modification; in fact, there is a disincentive to make such a modification. See *In re Gordon*, supra. It is, therefore, submitted that claims 21 and 32 are both allowable.

Claim 22

Claim 22 recites “restricting evacuation of the air through the upstream end of [the] housing during compression of the compression chamber.” One of ordinary skill in the art would not be motivated to modify Fahringer to restrict evacuation of the air through the upstream end of the housing during compression. Such a modification would disrupt the operation of Fahringer’s device. Were such a feature incorporated into Fahringer, air could not escape the front end 19 (as necessary) upon compression of bellows 12. Where modifying the reference would destroy the intent, purpose, or function of the reference, there is no technological motivation for the modification; in fact, there is a disincentive to make such a modification. See *In re Gordon*, supra. It is, therefore, submitted that claim 22 is allowable on this basis.

Claims 23 and 33

Claims 23 and 33 both recite that the compression chamber is “maintained in the compressed position by mechanically coupling it to a triggering assembly.” Fahringer does not disclose mechanically maintaining the compression chamber in the compressed position nor does it teach mechanically coupling the trigger to the bellows. Fahringer merely teaches mechanically maintaining the butterfly valve 30 in a closed position via spring 32. Bellows 12 are pneumatically maintained in a

compressed position by the pressure differential between the atmospheric pressure surrounding the bellows and the vacuum inside the bellows. As noted above, a *prima facie* case of obviousness requires that the prior art reference suggests all the claim limitations. *In re Vaeck*, supra. It is respectfully submitted that the Fahringer device does not include all the claim limitations of claims 23 and 33 because it only pneumatically maintains the compression chamber in a compressed position; it does not mechanically maintain it by mechanically coupling it to the trigger assembly. Thus a *prima facie* case of obviousness has not been established and claims 23 and 33 should be allowed.

Claim 25

Claim 25 recites that the “the movable closure remains in the closed position during evacuation.” One of ordinary skill in the art would not be motivated to modify Fahringer to include a movable closure that remains closed during evacuation. Fahringer incorporates a tacky surface presumably to prevent captured insects from escaping as air is evacuated through the front end 19 in preparation for triggering -- hence the absence of (and lack of need for) a movable closure in Fahringer. Indeed, regardless whether it would be obvious to incorporate a movable closure into the device of Fahringer, it would disrupt the operation of Fahringer’s device were the movable closure to remain closed during evacuation. Were such a feature incorporated into Fahringer, air could not escape the front end 19 (as necessary) upon compression of bellows 12. Where modifying the reference would destroy the intent, purpose, or function of the reference, there is no technological motivation for the modification; in fact, there is a disincentive to make such a modification. See *In re Gordon*, supra. It is, therefore, submitted that claim 25 is allowable on this basis.

Claim 26

Claim 26 recites that the “the movable closure is retained in the closed position during evacuation.” One of ordinary skill in the art would not be motivated to modify Fahringer to include a movable closure that is retained closed during evacuation. Fahringer incorporates a tacky surface presumably to prevent captured insects from escaping as air is evacuated through the front end 19 in preparation for triggering -- hence the absence of (and lack of need for) a movable closure in Fahringer. Indeed, regardless whether it would be obvious to incorporate a movable closure into the device of Fahringer, it would disrupt the operation of Fahringer’s device were the movable closure to be retained closed during evacuation. Were such a feature incorporated into Fahringer, air could not escape the front end 19 (as necessary) upon compression of bellows 12. Where modifying the reference would destroy the intent, purpose, or function of the reference, there is no technological motivation for the modification; in fact, there is a disincentive to make such a modification. *See In re Gordon*, supra. It is, therefore, submitted that claim 26 is allowable on this basis.

B. The Examiner has failed to establish a *prima facie* case of obviousness under 35 U.S.C. § 103(a) in rejecting claims 14, 15, and 25-27 as being unpatentable over Fahringer ‘330 in view of Wade ‘857, Winnicki ‘495 and further in view of Bron ‘074461.

Claims 14 and 27

Claims 14 and 27 recite that the “movable closure is mechanically retained in the closed position during evacuation.” As discussed above, one of ordinary skill in the art would not be motivated to modify Fahringer to include a movable closure retained closed during evacuation. Fahringer incorporates a tacky surface presumably to prevent captured insects from escaping as air is evacuated through

the front end 19 in preparation for triggering -- hence the absence of (and lack of need for) a movable closure in Fahringer. Indeed, regardless whether it would be obvious to incorporate a movable closure into the device of Fahringer, it would disrupt the operation of Fahringer's device were the movable closure retained closed during evacuation. Were such a feature incorporated into Fahringer, air could not escape the front end 19 (as necessary) upon compression of bellows 12. Where modifying the reference would destroy the intent, purpose, or function of the reference, there is no technological motivation for the modification; in fact, there is a disincentive to make such a modification. See *In re Gordon*, supra. It is, therefore, submitted that claims 14 and 27 all allowable.

Claim 15

Claim 15 recites that the movable closure "is restricted from moving outwardly in an upstream direction, yet is adapted to move inwardly in a downstream direction" as it assumes the open position. In other words, the movable closure is a one-way device, such as representatively shown by the trap doors in figures 11-13 and figures 23 and 33 particularly. This feature is advantageous because the inability of the movable closure to move outwardly lessens the chance of startling an insect, which is in close proximity to the upper end, or disrupting the ability to capture the insect, or risking escape of previously captured insects. Advantageously also, as the compression chamber is compressed to prepare the device for triggering, any air which is not evacuated through the downstream end would not open the movable closure but instead urge it to close more securely. Incorporating a movable closure which is restricted from outward movement would not be an obvious modification to Fahringer because it would likely prevent compression of the bellows, at least to the extent necessary to ready Fahringer's device for actuation. Were such a feature

incorporated into Fahringer, air could not escape the front end 19 (as necessary) upon compression of bellows 12. Again, where modifying the reference would destroy the intent, purpose, or function of the reference, there is no technological motivation for the modification; in fact, there is a disincentive to make such a modification. *See In re Gordon*, supra. It is, therefore, submitted that claims 15 is allowable.

Claim 25

Claim 25 recites that the “the movable closure remains in the closed position during evacuation.” One of ordinary skill in the art would not be motivated to modify Fahringer to include a movable closure that remains closed during evacuation. Fahringer incorporates a tacky surface presumably to prevent captured insects from escaping as air is evacuated through the front end 19 in preparation for triggering -- hence the absence of (and lack of need for) a movable closure in Fahringer. Indeed, regardless whether it would be obvious to incorporate a movable closure into the device of Fahringer, it would disrupt the operation of Fahringer’s device were the movable closure to remain closed during evacuation. Were such a feature incorporated into Fahringer, air could not escape the front end 19 (as necessary) upon compression of bellows 12. Where modifying the reference would destroy the intent, purpose, or function of the reference, there is no technological motivation for the modification; in fact, there is a disincentive to make such a modification. *See In re Gordon*, supra. It is, therefore, submitted that claim 25 is allowable on this basis.

Claim 26

Claim 26 recites that the “the movable closure is retained in the closed position during evacuation.” One of ordinary skill in the art would not be motivated to modify Fahringer to include a movable closure that is retained closed during

evacuation. Fahringer incorporates a tacky surface presumably to prevent captured insects from escaping as air is evacuated through the front end 19 in preparation for triggering -- hence the absence of (and lack of need for) a movable closure in Fahringer. Indeed, regardless whether it would be obvious to incorporate a movable closure into the device of Fahringer, it would disrupt the operation of Fahringer's device were the movable closure to be retained closed during evacuation. Were such a feature incorporated into Fahringer, air could not escape the front end 19 (as necessary) upon compression of bellows 12. Where modifying the reference would destroy the intent, purpose, or function of the reference, there is no technological motivation for the modification; in fact, there is a disincentive to make such a modification. See *In re Gordon*, supra. It is, therefore, submitted that claim 26 is allowable on this basis.

C. The Examiner has failed to establish a *prima facie* case of obviousness under 35 U.S.C. § 103(a) in rejecting claims 7, 9-12, and 24-33 as being unpatentable over Fahringer '330 in view of Wade '857, Winnicki '495 [or Jolly '497]¹ and Schuman '608.

Claims 7, 9, 10, and 12

Claim 7 recites "evacuating air through [the] sidewall at the downstream region of said housing." One of ordinary skill in the art would not be motivated to modify Fahringer to evacuate air through the sidewall. Any such modification would not be obvious because. Fahringer already provides a mechanism for expelling air out the front end in order to ready the device for actuation. Thus, one would not be inclined to evacuate air through the downstream region since this would not provide a capability (air evacuation), which is absent in Fahringer. A *prima facie* case of obviousness also requires that there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of

ordinary skill in the art, to modify the reference or to combine reference teachings. *In re Vaeck*, supra. Based on this reasoning, it is submitted that independent claim 7 and its respective dependent claims 9, 10, and 12 are allowable.

Claim 11

Claim 11 recites that the method “includes mechanically maintaining [the] compression chamber in the compressed position.” Fahringer does not disclose mechanically maintaining the compression chamber in the compressed position. Fahringer merely teaches mechanically maintaining the butterfly valve 30 in a closed position via spring 32. Bellows 12 are pneumatically maintained in a compressed position by the pressure differential between the atmospheric pressure surrounding the bellows and the vacuum inside the bellows. As noted above, a *prima facie* case of obviousness requires that the prior art reference suggests all the claim limitations. *In re Vaeck*, supra. It is respectfully submitted that the Fahringer does not include all the claim limitations of claim 11 because it only pneumatically maintains the compression chamber in a compressed position; it does not mechanically maintain it. Thus a *prima facie* case of obviousness has not been established and claim 11 should be allowed.

Claim 24

Claim 24 recites that the “air is only evacuated through [the] downstream region.” One of ordinary skill in the art would not be motivated to modify Fahringer to evacuate air through only the downstream region. Any such modification would not be obvious because Fahringer already provides a mechanism for expelling air out the front end in order to ready the device for actuation. Thus, one would not be inclined to evacuate air through the downstream region since this would not provide a capability (air evacuation), which is absent in Fahringer. A *prima facie* case of

obviousness also requires that there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. *In re Vaeck*, supra. Based on this reasoning, it is submitted that claim 24 is allowable.

Claim 25

Claim 25 recites that the “the movable closure remains in the closed position during evacuation.” One of ordinary skill in the art would not be motivated to modify Fahringer to include a movable closure that remains closed during evacuation. Fahringer incorporates a tacky surface presumably to prevent captured insects from escaping as air is evacuated through the front end 19 in preparation for triggering -- hence the absence of (and lack of need for) a movable closure in Fahringer. Indeed, regardless whether it would be obvious to incorporate a movable closure into the device of Fahringer, it would disrupt the operation of Fahringer's device were the movable closure to remain closed during evacuation. Were such a feature incorporated into Fahringer, air could not escape the front end 19 (as necessary) upon compression of bellows 12. Where modifying the reference would destroy the intent, purpose, or function of the reference, there is no technological motivation for the modification; in fact, there is a disincentive to make such a modification. See *In re Gordon*, supra. It is, therefore, submitted that claim 25 is allowable on this basis.

Claim 26

Claim 26 recites that the “the movable closure is retained in the closed position during evacuation.” One of ordinary skill in the art would not be motivated to modify Fahringer to include a movable closure that is retained closed during evacuation. Fahringer incorporates a tacky surface presumably to prevent captured insects from escaping as air is evacuated through the front end 19 in preparation for

triggering -- hence the absence of (and lack of need for) a movable closure in Fahringer. Indeed, regardless whether it would be obvious to incorporate a movable closure into the device of Fahringer, it would disrupt the operation of Fahringer's device were the movable closure to be retained closed during evacuation. Were such a feature incorporated into Fahringer, air could not escape the front end 19 (as necessary) upon compression of bellows 12. Where modifying the reference would destroy the intent, purpose, or function of the reference, there is no technological motivation for the modification; in fact, there is a disincentive to make such a modification. See *In re Gordon*, supra. It is, therefore, submitted that claim 26 is allowable on this basis.

Claim 27

Claim 27 recites that the "movable closure is mechanically retained in the closed position during evacuation." As discussed above, one of ordinary skill in the art would not be motivated to modify Fahringer to include a movable closure retained closed during evacuation. Fahringer incorporates a tacky surface presumably to prevent captured insects from escaping as air is evacuated through the front end 19 in preparation for triggering -- hence the absence of (and lack of need for) a movable closure in Fahringer. Indeed, regardless whether it would be obvious to incorporate a movable closure into the device of Fahringer, it would disrupt the operation of Fahringer's device were the movable closure retained closed during evacuation. Were such a feature incorporated into Fahringer, air could not escape the front end 19 (as necessary) upon compression of bellows 12. Where modifying the reference would destroy the intent, purpose, or function of the reference, there is no technological motivation for the modification; in fact, there is a disincentive to make

such a modification. *See In re Gordon*, supra. It is, therefore, submitted that claim 27 is allowable.

Claim 28

Claim 28 recites that the movable closure “is restricted from moving outwardly in an upstream direction, yet is adapted to move inwardly in a downstream direction” as it assumes the open position. In other words, the movable closure is a one-way device, such as representatively shown by the trap doors in figures 11-13 and figures 23 and 33 particularly. This feature is advantageous because the inability of the movable closure to move outwardly lessens the chance of startling an insect, which is in close proximity to the upper end, or disrupting the ability to capture the insect, or risking escape of previously captured insects. Advantageously also, as the compression chamber is compressed to prepare the device for triggering, any air which is not evacuated through the downstream end would not open the movable closure but instead urge it to close more securely. Incorporating a movable closure which is restricted from outward movement would not be an obvious modification to Fahringer because it would likely prevent compression of the bellows, at least to the extent necessary to ready Fahringer’s device for actuation. Were such a feature incorporated into Fahringer, air could not escape the front end 19 (as necessary) upon compression of bellows 12. Again, where modifying the reference would destroy the intent, purpose, or function of the reference, there is no technological motivation for the modification; in fact, there is a disincentive to make such a modification. *See In re Gordon*, supra. It is, therefore, submitted that claim 28 is allowable.

Claim 29

Claim 29 recites “permitting unconstrained movement of the insect within the upstream region after capture.” This is certainly not present in Fahringer, which has its trap 18 lined with a tacky interior surface 20 for the obvious purpose of preventing movement of the captured insects. In Fahringer, the tacky surface presumably also prevents captured insects from escaping as air is evacuated through the front end 19 in preparation for triggering. By not constraining the movement of captured insects, the present invention not only allows for the insects to be captured and observed but it allows them to be released into the atmosphere without harm so that the device, unlike Fahringer’s, can be reusable without having to dispose of the front end. Furthermore, in order to modify Fahringer to allow insects to move unconstrained, the tacky surface would need to be removed. Removing the tacky surface would render Fahringer inoperable in that it would allow insects to escape. Again, where modifying the reference would destroy the intent, purpose, or function of the reference, there is no technological motivation for the modification; in fact, there is a disincentive to make such a modification. See *In re Gordon*, supra. It is, therefore, submitted that claim 29 is allowable.

Claims 30 and 31

Claims 30 and 31 both recite “releasing the insect into ambient air after capture.” This is certainly not present in Fahringer, which has its trap 18 lined with a tacky interior surface 20 for the obvious purpose of preventing movement of the captured insects. In Fahringer, the tacky surface presumably also prevents captured insects from escaping as air is evacuated through the front end 19 in preparation for triggering. By not constraining the movement of captured insects, the present invention not only allows for the insects to be captured and observed but it allows

them to be released into the atmosphere without harm so that the device, unlike Fahringer's, can be reusable without having to dispose of the front end. Furthermore, in order to modify Fahringer to allow insects to be released into ambient air after release, the tacky surface would need to be removed. Removing the tacky surface would render Fahringer inoperable in that it would allow insects to escape. Again, where modifying the reference would destroy the intent, purpose, or function of the reference, there is no technological motivation for the modification; in fact, there is a disincentive to make such a modification. *See In re Gordon*, supra. It is, therefore, submitted that claims 30 and 31 are both allowable.

Claim 32

Claims 32 recites a "removable collection tube" and "releasing the insect into ambient air after capture." This, again, is not present in Fahringer, which has its trap 18 lined with a tacky interior surface 20 for the obvious purpose of preventing movement of the captured insects. In Fahringer, the tacky surface presumably also prevents captured insects from escaping as air is evacuated through the front end 19 in preparation for triggering. By not constraining the movement of captured insects, the present invention not only allows for the insects to be captured and observed but it allows them to be released into the atmosphere without harm so that the device, unlike Fahringer's, can be reusable without having to dispose of the front end. Furthermore, in order to modify Fahringer to allow the tube to be removed and the insect released into ambient air after release, the tacky surface would need to be removed. Removing the tacky surface would render Fahringer inoperable in that it would allow insects to escape. Again, where modifying the reference would destroy the intent, purpose, or function of the reference, there is no technological motivation

for the modification; in fact, there is a disincentive to make such a modification. See *In re Gordon*, supra. It is, therefore, submitted that claim 32 is allowable.

Claim 33

Claim 33 recites that the compression chamber is “maintained in the compressed position by mechanically coupling it to a triggering assembly.” Fahringer does not disclose mechanically maintaining the compression chamber in the compressed position nor does it teach mechanically coupling the trigger to the bellows. Fahringer merely teaches mechanically maintaining the butterfly valve 30 in a closed position via spring 32. Bellows 12 are pneumatically maintained in a compressed position by the pressure differential between the atmospheric pressure surrounding the bellows and the vacuum inside the bellows. As noted above, a *prima facie* case of obviousness requires that the prior art reference suggests all the claim limitations. *In re Vaeck*, supra. It is respectfully submitted that the Fahringer device does not include all the claim limitations of claim 33 because it only pneumatically maintains the compression chamber in a compressed position; it does not mechanically maintain it by mechanically coupling it to the trigger assembly. Thus a *prima facie* case of obviousness has not been established and claim 33 should be allowed.

D. The Examiner has failed to establish a *prima facie* case of obviousness under 35 U.S.C. § 103(a) in rejecting claims 25-27 as being unpatentable over Fahringer ‘330 in view of Wade ‘857, Winnicki ‘495, Schuman ‘608, and further in view of Bron ‘074461.

Claim 25

Claim 25 recites that the “the movable closure remains in the closed position during evacuation.” One of ordinary skill in the art would not be motivated to modify Fahringer to include a movable closure that remains closed during evacuation.

Fahringer incorporates a tacky surface presumably to prevent captured insects from escaping as air is evacuated through the front end 19 in preparation for triggering -- hence the absence of (and lack of need for) a movable closure in Fahringer. Indeed, regardless whether it would be obvious to incorporate a movable closure into the device of Fahringer, it would disrupt the operation of Fahringer's device were the movable closure to remain closed during evacuation. Were such a feature incorporated into Fahringer, air could not escape the front end 19 (as necessary) upon compression of bellows 12. Where modifying the reference would destroy the intent, purpose, or function of the reference, there is no technological motivation for the modification; in fact, there is a disincentive to make such a modification. *See In re Gordon, supra*. It is, therefore, submitted that claim 25 is allowable on this basis.

Claim 26

Claim 26 recites that the "the movable closure is retained in the closed position during evacuation." One of ordinary skill in the art would not be motivated to modify Fahringer to include a movable closure that is retained closed during evacuation. Fahringer incorporates a tacky surface presumably to prevent captured insects from escaping as air is evacuated through the front end 19 in preparation for triggering -- hence the absence of (and lack of need for) a movable closure in Fahringer. Indeed, regardless whether it would be obvious to incorporate a movable closure into the device of Fahringer, it would disrupt the operation of Fahringer's device were the movable closure to be retained closed during evacuation. Were such a feature incorporated into Fahringer, air could not escape the front end 19 (as necessary) upon compression of bellows 12. Where modifying the reference would destroy the intent, purpose, or function of the reference, there is no technological motivation for the modification; in fact, there is a disincentive to make such a

modification. See *In re Gordon*, supra. It is, therefore, submitted that claim 26 is allowable on this basis.

Claim 27

Claim 27 recites that the “movable closure is mechanically retained in the closed position during evacuation.” As discussed above, one of ordinary skill in the art would not be motivated to modify Fahringer to include a movable closure retained closed during evacuation. Fahringer incorporates a tacky surface presumably to prevent captured insects from escaping as air is evacuated through the front end 19 in preparation for triggering -- hence the absence of (and lack of need for) a movable closure in Fahringer. Indeed, regardless whether it would be obvious to incorporate a movable closure into the device of Fahringer, it would disrupt the operation of Fahringer’s device were the movable closure retained closed during evacuation. Were such a feature incorporated into Fahringer, air could not escape the front end 19 (as necessary) upon compression of bellows 12. Where modifying the reference would destroy the intent, purpose, or function of the reference, there is no technological motivation for the modification; in fact, there is a disincentive to make such a modification. See *In re Gordon*, supra. It is, therefore, submitted that claim 27 is allowable.

E. The Examiner has failed to establish a *prima facie* case of obviousness under 35 U.S.C. § 103(a) in rejecting claims 1-7 and 9-33 as being unpatentable over Fahringer ‘330 in view of [Wade ‘857 and]² Winnicki ‘495 [or Jolly ‘497]¹.

It appears that Heading E presents the same grounds of rejection as is presented in Heading A above. Rather than repeat the same arguments again, the Appellant has referred to the arguments presented in Heading A.

Claims 1, 2, 3, 4, 6, and 13

Please refer to arguments presented under Heading A above.

Claims 5 and 11

Please refer to arguments presented under Heading A above.

Claims 7, 9, 10, and 12

Please refer to arguments presented under Heading A above.

Claims 14 and 27

Please refer to arguments presented under Heading A above.

Claims 15 and 28

Please refer to arguments presented under Heading A above.

Claim 16

Please refer to arguments presented under Heading A above.

Claims 17 and 24

Please refer to arguments presented under Heading A above.

Claims 18 and 29

Please refer to arguments presented under Heading A above.

Claims 19, 20, 30, and 31

Please refer to arguments presented under Heading A above.

Claims 21 and 32

Please refer to arguments presented under Heading A above.

Claim 22

Please refer to arguments presented under Heading A above.

Claims 23 and 33

Please refer to arguments presented under Heading A above.

Claim 25

Please refer to arguments presented under Heading A above.

Claim 26

Please refer to arguments presented under Heading A above.

F. The Examiner has failed to establish a *prima facie* case of obviousness under 35 U.S.C. § 103(a) in rejecting claims 14, 15, and 25-27 as being unpatentable over Fahringer '330 in view of Winnicki '495, and further in view of Bron '074461.

It appears that Heading F presents the same grounds of rejection as is presented in Heading B above with the exception that the reference to Wade '857 is omitted in Heading F. Rather than repeat the same arguments again, the Appellant has referred to the arguments presented in Heading B.

Claims 14 and 27

Please refer to arguments presented under Heading B above.

Claim 15

Please refer to arguments presented under Heading B above.

Claim 25

Please refer to arguments presented under Heading B above.

Claim 26

Please refer to arguments presented under Heading B above.

G. The Examiner has failed to establish a *prima facie* case of obviousness under 35 U.S.C. § 103(a) in rejecting claims 7, 9-12, and 24-33 as being unpatentable over Fahringer '330 in view of Winnicki '495 [or Jolly '497]¹ and Schuman '608.

It appears that Heading G presents the same grounds of rejection as is presented in Heading C above with the exception that the reference to Wade '857 is omitted in Heading G. Rather than repeat the same arguments again, the Appellant has referred to the arguments presented in Heading C.

Claims 7, 9, 10, and 12

Please refer to arguments presented under Heading C above.

Claim 11

Please refer to arguments presented under Heading C above.

Claim 24

Please refer to arguments presented under Heading C above.

Claim 25

Please refer to arguments presented under Heading C above.

Claim 26

Please refer to arguments presented under Heading C above.

Claim 27

Please refer to arguments presented under Heading C above.

Claim 28

Please refer to arguments presented under Heading C above.

Claim 29

Please refer to arguments presented under Heading C above.

Claims 30 and 31

Please refer to arguments presented under Heading C above.

Claim 32

Please refer to arguments presented under Heading C above.

Claim 33

Please refer to arguments presented under Heading C above.

H. The Examiner has failed to establish a *prima facie* case of obviousness under 35 U.S.C. § 103(a) in rejecting claims 25-27 as being unpatentable over Fahringer '330 in view of Winnicki '495 and Schuman '608, and further in view of Bron '074461.

It appears that Heading H presents the same grounds of rejection as is presented in Heading D above with the exception that the reference to Wade '857 is omitted in Heading H. Rather than repeat the same arguments again, the Appellant has referred to the arguments presented in Heading D.

Claim 25

Please refer to arguments presented under Heading D above.

Claim 26

Please refer to arguments presented under Heading D above.

Claim 27

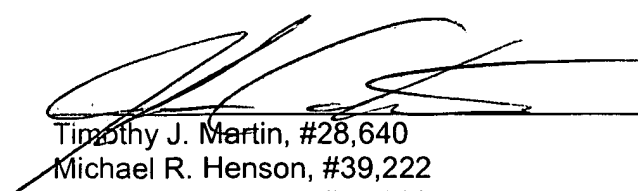
Please refer to arguments presented under Heading D above.

IX. CONCLUSION

Based on the foregoing, Appellant submits that all claims 1-7 and 9-33 are allowable. Further, Appellant maintains that the Examiner has improperly rejected the appealed claims of this application and has improperly failed to enter allowance in this case. As argued above, the application discloses and claims an invention not fully and fairly anticipated or obviated by the applied references either alone or in combination. Therefore, Appellant respectfully requests that the Board reverse the Examiner's decision and grant allowance of these claims.

Respectfully submitted,

MARTIN & HENSON, P.C.



Timothy J. Martin, #28,640
Michael R. Henson, #39,222
John W. Carpenter, #57,830
9250 W. 5th Avenue, Suite 200
Lakewood, Colorado 80226
(303) 232-3388

CLAIMS APPENDIX

1. (Previously Presented) A method of capturing insects, comprising:
 - (a) providing an elongated housing having an effective length and a sidewall which extends between an upstream end and a downstream end to substantially surround a housing interior, said housing constructed to permit airflow between said upstream end and said downstream end, while impeding passage of insects therebetween;
 - (b) providing a movable closure at an upstream end portion of said housing, with said movable closure being biased into a closed position hindering access to the housing interior through said upstream end;
 - (c) evacuating air from said housing, while retaining the movable closure in the closed position, thereby to establish a potential vacuum source within the housing interior;
 - (d) placing said movable closure proximate to a target insect; and
 - (e) creating air pressure within the upstream end portion of said housing that is less than ambient pressure at the upstream end whereby ambient air is drawn into the housing interior at a sufficient flow to cause said movable closure to move into an open position thereby to create an entryway into the upstream region from the upstream end and to draw the insect into the upstream region to be trapped therein when the movable closure returns to the closed position.
2. (Original) A method according to claim 1 including providing a compression chamber at a downstream end portion of said housing, and whereby the step of evacuating air from said housing is accomplished by compressing said compression chamber into a compressed position.

3. (Original) A method according to claim 2 whereby creation of air pressure within the upstream end portion of said housing that is less than ambient pressure is accomplished by returning said compression chamber to an uncompressed position.

4. (Previously Presented) A method according to claim 2 including resiliently biasing said compression chamber into an uncompressed position.

5. (Original) A method according to claim 2 including mechanically maintaining said compression chamber in the compressed position.

6. (Original) A method according to claim 1 whereby evacuation of air from the housing is accomplished before the movable closure is placed proximate to the target insect.

7. (Previously Presented) A method of capturing insects, comprising:

(a) providing an elongated housing having a sidewall which substantially surrounds a housing interior and which is partitioned into an upstream region and a downstream region, whereby airflow is permitted between said upstream and downstream regions while passage of insects therebetween is impeded;

(b) providing a movable closure at an upstream end portion of said housing, with said movable closure being biased into a closed position to hinder access to said upstream region from said upstream end;

(c) providing a compression chamber at a downstream end portion of said housing;

(d) evacuating air through said sidewall at the downstream region of said housing by compressing said compression chamber into a compressed position, thereby to establish a potential vacuum source within the housing interior;

(e) placing said movable closure proximate to a target insect; and

(f) creating air pressure within the upstream region of the housing interior that is less than ambient pressure at the upstream end, whereby ambient air is drawn into the housing interior at a sufficient flow to cause said movable closure to move into an open position, thereby to create an entryway into the upstream region from the upstream end and to draw the insect into the upstream region to be trapped therein when the movable closure returns to the closed position.

8. (Canceled).

9. (Previously Presented) A method according to claim 7 whereby creation of air pressure within the upstream region of said housing that is less than ambient pressure is accomplished by returning said compression chamber to an uncompressed position.

10. (Previously Presented) A method according to claim 7 including resiliently biasing said compression chamber into the uncompressed position.

11. (Previously Presented) A method according to claim 7 including mechanically maintaining said compression chamber in the compressed position.

12. (Original) A method according to claim 7 whereby evacuation of air from the housing is accomplished before the movable closure is placed proximate to the target insect.

13. (Previously Presented) A method according to claim 1 whereby the effective length of said housing is maintained during step (e).

14. (Previously Presented) A method according to claim 1 whereby said movable closure is mechanically retained in the closed position during evacuation of air from said housing.

15. (Previously Presented) A method according to claim 1 whereby said movable closure is restricted from moving outwardly in an upstream direction, yet is adapted to move inwardly in a downstream direction as it moves into the open position.

16. (Previously Presented) A method according to claim 1 whereby the air is evacuated through a downstream region of said housing.

17. (Previously Presented) A method according to claim 16 whereby the air is only evacuated through said downstream region.

18. (Previously Presented) A method according to claim 1 comprising permitting unconstrained movement of the insect within the upstream region after capture.

19. (Previously Presented) A method according to claim 18 comprising releasing the insect into ambient air after capture.

20. (Previously Presented) A method according to claim 1 comprising releasing the insect into ambient air after capture.

21. (Previously Presented) A method according to claim 1 wherein said upstream end portion includes a removable collection tube, and comprising removing said collection tube and releasing the insect into ambient air after capture.

22. (Previously Presented) A method according to claim 2 comprising restricting evacuation of the air through the upstream end of said housing during compression of said compression chamber.

23. (Previously Presented) A method according to claim 5 whereby said compression chamber is maintained in the compressed position by mechanically coupling it to a triggering assembly to define an engaged state for the triggering assembly.

24. (Previously Presented) A method according to claim 7 whereby the air is only evacuated through said downstream region.

25. (Previously Presented) A method according to claim 7 whereby said movable closure remains in the closed position during evacuation of the air through said sidewall.

26. (Previously Presented) A method according to claim 25 whereby said movable closure is retained in the closed position during evacuation of the air through said sidewall.

27. (Previously Presented) A method according to claim 26 whereby said movable closure is mechanically retained in the closed position during evacuation of air from said housing.

28. (Previously Presented) A method according to claim 7 whereby said movable closure is restricted from moving outwardly in an upstream direction, yet is adapted to move inwardly in a downstream direction as it moves into the open position.

29. (Previously Presented) A method according to claim 7 comprising permitting unconstrained movement of the insect within the upstream region after capture.

30. (Previously Presented) A method according to claim 29 comprising releasing the insect into ambient air after capture.

31. (Previously Presented) A method according to claim 7 comprising releasing the insect into ambient air after capture.

32. (Previously Presented) A method according to claim 7 wherein said upstream end portion includes a removable collection tube for trapping the insect, and comprising removing said collection tube and releasing said insect into ambient air after capture.

33. (Previously Presented) A method according to claim 11 whereby said compression chamber is maintained in the compressed position by mechanically coupling it to a triggering assembly to define an engaged state for the triggering assembly.

EVIDENCE APPENDIX

None

RELATED PROCEEDINGS APPENDIX

None